Periscope.

a.—ANATOMY OF THE NERVOUS SYSTEM.

DRESCHFELD, J.—Pathological contributions on the course of the optic-nerve fibres in the brain.—*Brain*, Jan., 1882.

Dreschfeld calls attention to the *course of the optic-nerve fibres in the brain.* He reports two cases of *post-mortem* examinations sustaining the partial decussation of the optic-nerve fibres. In the first there was total left hemianopsia in each field of vision, also diplopia ; also left hemianæsthesia, with diminution of sensibility to contact, to pain, and to temperature. *Post-mortem* revealed all the organs except the brain to be healthy. Right hemisphere only affected. Sarcoma at posterior part of internal capsule extending from its centre to optic thalamus, lenticular nucleus, and ant. corp. quad. of right side. Right optic tract was flattened and soft where it crossed the crus.

The application of these pathological conditions is given in some detail, but all important deductions may be found in most of the text-books upon this subject.

The same author reports a second case in which the patient had left hemiplegia complete, as far as the leg and arm were cencerned, the face but little affected. She had left hemianopsia in each eye, not reaching quite up to the point of fixation. The line limiting the loss of vision was almost vertical. Central vision was fairly normal, pupils equal and reacting well to light. No affection of any other cerebral nerves. Special senses normal.

Post-mortem revealed the brain externally normal, except the left lobe of the cerebellum, where there was a fresh hemorrhage on the under surface of the lobe just beneath the pia mater, forming a thin layer about two lines in thickness and an inch in circumference ; further, two spots of hemorrhage, circular in form and half an inch in diameter, were found in the centr. ovale of right hemisphere, corresponding to the ascending frontal convolution. A little behind these, corresponding nearly to the ascending parietal convolution, was another small hemorrhage, situated entirely in the centr. ovale, encroaching neither upon the cortex nor basal ganglia. There was another small hemorrhage in the substance of the right optic thalamus at its posterior and upper extremity. The rest of the thalamus and also the corp. quad. was normal. The author incorporates two diagrams to indicate the seat of existing lesions.

BRUNTON, T. L. On the position of the motor centres in the brain, in regard to the nutritive and social functions.—*Brain*, Jan. 1882.

In his article *on the position of the motor centres in the brain, in regard to the nutritive and social functions*, Brunton writes that since the respiration of air and the acquisition of food are the fundamental acts of self-preservation, the motor centres must be arranged according to these requirements. He believes that since the act of respiration is a very simple one, its centre is, therefore, to be found in the medulla oblongata and the upper part of the spinal cord ; but adds, where an adult has learned to modify respiration by careful study, as in singing, the centre will be in the cerebrum.

The centres by which the primary acts of nutrition, deglutition, digestion, etc., are effected, are in the spinal cord and sympathetic ganglia, but the centres by which the complicated acts required in order to obtain food are controlled, are without doubt situated in the brain.

Since the movements for seeking and obtaining food are essential to the existence of the animal, we should expect to find the motor centres in the brain arranged chiefly with reference to the acquisition of food, and also that the centres would be modified in different animals according to the manner in which they obtain their food. He thinks that this is upheld when we examine the functions of the motor centres of the brain as ascertained by Ferrier.

He gives two wood-cuts, and a small table.

GARDINER-BROWN, A. The acoustic potentials of the human auricle.—*Lancet*, December 24, 1881.

In his article on *the acoustic potentials of the human auricles*, Gardiner-Brown states that in a well-formed auricle the whole free margin of the cartilage gives a beautifully graduated ascending scale of notes, on friction of the parts, forming a complete octave from the tragus in front to the posterior border of the helix behind (C, D, E, F, G, a, b, c). He gives several explanatory diagrams.

The anti-tragus forms a distinct and isolated note, E, which serves to reinforce the E of the helix. The octave of the C is also reinforced by its octave c. The notes or friction-sounds are produced by quickly passing the finger or the rubber end of a pencil over the different segments between certain sections of the free margin of the cartilage. He gives a diagram in which there are radial lines indicating the positions of the semitones, or sharps and flats of the whole notes. He observes that it is very remarkable that the notes which form the basis of all music, viz., the 1st major triad or tonic (C, E, G), are very distinctly produced by friction on the tragus, anti-tragus, and the middle of the upper border of the rim of the helix.

After noting some very interesting actions of the intrinsic muscles of the auricle he ends his paper by observing : (*a*) the external ear, or auricle, is in the first place protective ; (*b*) it aids in catching by its increased area a larger amount of the sound-waves falling on it, and conducting them to the ear, than would arrive if it were absent ; (*c*) it conducts part of these immediately to the temporal bone, and so to the nerve of hearing, and part by its ordinary funnel action ; (*d*) it gives knowledge of direction of sound especially when acting with its fellow of the opposite side ; and (*e*) by its resonant qualities it reinforces musical sounds in a manner and by the means already set forth, and so aids in no uncertain way the perception of musical sounds reaching the ear, by intensifying the higher notes and the higher harmonics, or upper partials of the lower notes of the musical scale.

AMBROSE L. RANNEY, M.D.

b.—NORMAL HISTOLOGY OF THE NERVOUS SYSTEM.

THE BLOOD-VESSELS OF THE SPINAL CORD.—With the view of sustaining a theory recently advanced by him in the *Archiv für Psychiatrie und Nervenkrankheiten*, namely, that tabes is not a systemic disease, but is caused by an interstitial connective-tissue degeneration originating in the blood-vessels of the posterior col-